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EXAMINER	
GARCIA, ERNESTO	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/693,195	GEIB, RANDALL R.	
	Examiner	Art Unit	
	ERNESTO GARCIA	3679	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 November 2008*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14 and 21-32* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14 and 21-32* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *24 October 2003* is/are: a)☐ accepted or b)☒ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Drawings

The drawings are objected to because the drawings fail to identify the forward surface and the rearward surface of the first connector and the second connector as introduced in the independent claims 1, 9, and 24 to understand the invention. Note that no surfaces have been identified. Further, one of the references characters in Figure 2 is not clearly visible. In particular, "48" appears to be drawn as an "18".

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended". If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the

renumbering of the remaining figures. The replacement sheet(s) should be labeled "Replacement Sheet" in the page header (as per 37 CFR 1.84(c)) so as not to obstruct any portion of the drawing figures. If the examiner does not accept the changes, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: "a first connector having a forward surface and a rearward surface spaced apart from the forward surface, wherein the rearward surface is spaced apart from the threaded portion" recited in claim 1, lines 3-5, "a first connector having a first engagement surface and a second engagement surface" recited in claim 24, lines 3-4, "the second connector comprises a forward surface cooperable with the forward surface of the first connector" recited in claim 1, lines14-15, "the second connector comprises a rearward surface cooperable with the rearward surface of the fist connector" recited in claim 1, lines 19-20, "the second connector has a first engagement surface and a second engagement surface" recited in claim 24, lines 11-12.

Claim Objections

Claims 9, 24, 25, and 26 are objected to because of the following informalities:

regarding claims 9 and 24, a comma should be inserted after "shaft" in line 2. Note that this objection was not addressed by the applicants. This needed since the claim rather defines what the shaft comprises rather than the device;

regarding claim 24, the clause at lines 19-22 requires correction as it recites a run-on sentence;

regarding claim 25, "internal" in line 3 should be --external-- as the inner sleeve does not have an internal surface with major and minor diameters; and,

regarding claim 26, "a" in lien 1 should be --the--. Appropriate correction is required. For purposes of examining the instant invention, the examiner has assumed these corrections have been made.

Claim Rejections - 35 USC § 112

Claims 9-14, 21, 22, and 27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Regarding claim 9, the recitation "a nut having ... an engagement element" in line 10 and "a circumferential interlock cooperating with the engagement element" in line 19 are not supported by the written description requirement. According to the specification and the drawings, the nut has an circumferential flange and a circumferential groove but no engagement element. Accordingly, this a new matter rejection.

Regarding claim 27, the recitation "the first connector is one of a flange and a mating groove ..., and the second connector is the other of the flange and the mating groove" in lines 1-3 is nowhere found in the disclosure. Further, the specification does not have support that either the flange or the groove can be the first connector in the alternative. According to Figure 4, both the groove 46 and the flange 48 are required at the same instance and not in the alternative.

Applicant argues that the examiner appears to indicate that the first connector must include both the flange and the groove, and that nothing in the specification and drawings requires such a conclusion. In response, the examiner is not indicating that the flange and the groove must include both, but rather indicates that these are not found to be in the alternative. Further, the specification does not have support that only the flange is required or for that matter only the groove. Accordingly, neither does the applicant state where this is supported. If so, where's is this found? According to what has been originally shown, the first connector is both the flange and the groove as these

two features are dependent from each other based on the drawings. Applicant never disclosed just having the flange by itself or for that matter in the alternative.

Claims 1-8, 21, 23, 27, and 32 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 1, the metes and bounds of the claim is unclear. In particular, it is unclear what constitutes a "forward surface" of the second connector that is cooperable with the forward surface as recited in lines 14-16 as the drawings do no show what is the forward surface. Further, the recitation "the rearward surface of the first connector drives the rearward surface of the second connector rearwardly relative to the inner sleeve" in lines 31-32 makes unclear how the rearward surface accomplishes the driving of the rearward surface of the second connector. Note that the claim does not set forth the mechanism for accomplishing such driving action. Further, this also applies to the forward surface of the first connector driving the forward surface of the second connector forwardly relative to the inner sleeve in lines 39-40. Applicant is reminded that patentability is based upon the structural differences and not how the device operates or what it does.

Regarding claim 9, the recitation "a circumferential interlock cooperating with the engagement element to prevent substantial forward and rearward axial displacement of the outer sleeve relative to the nut" in lines 19-21 makes unclear how the circumferential interlock cooperating with the engagement element prevents substantial forward and rearward axial displacement of the outer sleeve relative to the nut when there is an axial gap between the inner flange 55 of the outer sleeve and the nut flange 48 as seen in Figure 2. It seems that the nut can move relative to the outer sleeve due to the presence of the gap.

Regarding claim 21, the recitation "second direction" in lines 1-2 makes unclear whether this is the same second direction recited in claim 9, line 31, or still another second direction. Assuming the second direction is the same, the subject matter of this claim would have been redundant since claim 9, lines 30-36, sets forth the same subject matter.

Regarding claim 27, the recitation "is one of a flange and a mating groove configured to retain the flange within the groove" in lines 1-2 is unclear. Since the language "one of" refers to either the flange or the groove, how can the configuration of the mating groove be possible without the flange in the alternative. Note that the second condition makes unclear what configuration of the mating groove is required to allow the groove to retain the flange within the groove.

Regarding claim 32, the metes and bounds of the claim is unclear. In particular, the claim fails to set forth any structural features or modification to the previously set structural features. In other words, how does the flange being "cooperable with the machine element" in line 2 further limiting the device when the machine element is not part of the claimed device?

Claim Rejections - 35 USC § 102

Claims 9, 10, 13, 14, and 21 are rejected under 35 U.S.C. 102(b) as being anticipated by Muellenberg, 5,067,847.

Regarding claim 9, Muellenberg discloses, in Figure 11, a device, comprising a one-piece inner sleeve **10**, a nut **30**, and an outer sleeve **20**. The inner sleeve **10** has a forward end **A15** (see marked-up attachment) and a rearward end **A31**. The inner sleeve **10** comprises a threaded portion **A1** (similar to 8 in Figure 1), a frustoconical external surface **6** (see Figure 1 as guide) and an internal bore **5** (see Figure 1 as guide). The frustoconical external surface **6** has a major diameter **A35** adjacent the threaded portion **8** (see Figure 1 as guide) and a minor diameter **A14** spaced from the major diameter **A35** toward the forward end **A15** of the inner sleeve **10**. The nut **30** has a threaded portion **15** at one end **A25** and an engagement element **17** spaced from the one end **A25**. The outer sleeve **20** has a forward end **A8** and a rearward end **A37**. The outer sleeve **20** comprises a frustoconical interior surface **12**, an exterior surface **12** and

a circumferential interlock **13**. The frustoconical interior surface **12** correspond in angle of taper to the frustoconical external surface **6** of the inner sleeve **10**. The frustoconical interior surface **12** has a major diameter **A9** and a minor diameter **A7**. The major diameter **A9** is adjacent the rearward end **A31** and the minor diameter **A7** is adjacent the forward end **A8**. The exterior surface **12** corresponds to the bore **4** of the machine element **3**. The circumferential interlock **13** engages the engagement element **17** of the nut **30**.

Applicant should note that upon rotating the nut in a first direction, inherently, a first portion of the engagement element engages the circumferential interlock thereby displacing the major diameter of the inner sleeve external surface toward the minor diameter of the outer sleeve internal surface. Displacements cause the internal bore of the inner sleeve to contract against a shaft and the external surface of the outer sleeve to expand against a bore of a machine element. Upon rotation of the nut in a second direction opposite the first direction, a second portion of the engagement element engages the circumferential interlock of the outer sleeve thereby displacing the minor diameter of the outer sleeve away from the major diameter of the inner sleeve, such displacements being operable to loosen the inner sleeve from the shaft and the outer sleeve from the bore of the machine element.

Regarding claim 10, the flange **17** extends radially outwardly and the nut **30** further comprises an annular groove **16** adjacent the flange **17**. The outer sleeve **20** is a one-piece sleeve having sufficient resilience.

Regarding claim 13, the outer sleeve **20** comprises a stop **A29**.

Regarding claim 14, end **A45** of the inner sleeve **10** is continuous about the circumference.

Regarding claim 21, applicant should note that rotating the nut in the second direction inherently displaces the inner sleeve rearwardly relative to the nut, thereby loosening the inner sleeve from a shaft and the outer sleeve from a bore of a machine element.

Claims 24, 27, 28, 30 and 31 are rejected under 35 U.S.C. 102(b) as being anticipated Soussloff, 4,600,334.

Regarding claim 24, Soussloff discloses, in Figure 9, a device comprising a nut **30**, an outer sleeve **34**, and an inner sleeve **120**. The nut **50** has a threaded portion **51** and a first connector **A1** (see marked-up attachment). The first connector A**1** has a first engagement surface A**2** and a second engagement surface A**3**. The outer sleeve **34** comprises a tapered internal surface **32** and a second connector **A4**. The second

connector **56** is connected with the first connector **A1**. The second connector A**4** has a first engagement surface A**5** and a second engagement surface A**6**. The inner sleeve **120** comprises a tapered external surface **25**, an interior bore **A2**, and a threaded portion **123**. The tapered external surface **25** corresponding in angle of taper to the tapered internal surface **32** of the outer sleeve **34**. The threaded portion **123** is remote from a forward end of the inner sleeve **120** and cooperable with the threaded portion **51** of the nut **30**.

Applicant should note that rotating the nut in a first direction inherently displaces the first engagement surface to engage the first engagement surface of the second connector to displace the outer sleeve rearwardly relative to a machine element **154** thereby causing the inner sleeve to contract against the shaft and the outer sleeve to expand against the bore of the machine element . Rotating the nut in a second direction opposite the first direction displaces the second engagement surface of the first connector into engagement with the second engagement surface of the second connector to displace the outer sleeve forwardly relative to the machine element thereby loosening the inner sleeve from the shaft and the outer sleeve from the bore of the machine element.

Regarding claim 27, as best understood, the first connector A**1** is a flange and the second connector is a groove (note that features A5 and A6 make a groove).

Regarding claim 28, the outer sleeve **34** comprises axial slots A**7** extending longitudinally along the outer sleeve **34**. Note that the configuration and orientation of the slots provide sufficient radial flexibility.

Regarding claim 30, the outer sleeve **34** comprises a stop (the first engagement surface A5 acts as a stop).

Regarding claim 31, the outer surface of the inner sleeve **120** engages the internal surface of the outer sleeve **34**.

Claim Rejections - 35 USC § 103

Claim 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muellenberg, 5,067,847, in view of Geib, 6,361,243, as applied to claims 1, 2, 4-8, 23, and 32, and further in view of Geib, 5,695,297.

Regarding claim 3, Muellenberg, as modified, discloses the outer sleeve **20** being sufficiently resilient such that the outer sleeve **20** contracts. However, Muellenberg fails to disclose the first connector **A2** comprises a circumferential groove and the second connector **A7** comprises a flange **13** extending radially inwardly. Instead, Muellenberg teaches the reverse configuration. Geib '297 teaches, in Figure 7, a first connector comprising a circumferential groove **C1** (see marked-up attachment) on

a nut 340' and a second connector 324' comprising a flange 324' on an outer sleeve 350' and extending radially inwardly to place the outer sleeve over the nut in reverse rather than having the nut over the outer sleeve (col. 6, lines 58 - col. 7, line 9). Therefore, as taught by Geib '297, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the first connector comprise a circumferential groove and the second connector comprise a flange extending radially inwardly to reverse the connection of the nut and the outer sleeve so that the outer sleeve is over the nut rather than the nut being over the outer sleeve.

Claims 1, 2, 4-8, 23, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muellenberg, 5,067,847, in view of Geib, 6,361,243.

Regarding claim 1, Muellenberg discloses, in Figure 11, a device comprising a nut **30**, an outer sleeve **20**, and an inner sleeve **10**. The nut **30** has a threaded portion **A1** (see marked-up attachment which is similar to 15 in Figure 1) and a first connector **A2**. The first connector **A2** has a forward surface **A3** and a rearward surface **A4** spaced from the forward surface **A3**. The rearward surface **A4** is spaced from the threaded portion A**1**. The outer sleeve **20** comprises an external surface **A5** (similar to 12 in Figure 1), a tapered internal surface **A6** (similar to 11 in Figure 1), at least one axial slot (col. 4, lines 62-64) and a second connector **A7**. The second connector **A7** comprises a rearward surface **A29** cooperable with the rearward surface of the first connector **A2**. The tapered internal surface **11** has a minor diameter **A7** adjacent a

forward end **A8** of the outer sleeve **20** and a major diameter **A9** spaced rearwardly from the forward end **A8**. The axial slot extends longitudinally along the outer sleeve **20**. The second connector **A7** is connected with the first connector **A2**. The inner sleeve **10** comprises a tapered external surface **6** (see Figure 1 as guide) corresponding in angle of taper to the tapered internal surface **11** of the outer sleeve **20**. The inner sleeve **10** has a minor diameter **A14** adjacent a forward end **A15** of the inner sleeve **10** and a major diameter **A35** spaced rearwardly from the forward end **A15** of the inner sleeve **10**. The inner sleeve **10** has a threaded portion **8** (see Figure 1 as guide) remote from the forward end **A15** of the inner sleeve **10** and cooperates with the thread portion **15** of the nut **30**.

However, Muellenberg fails to disclose the external surface **A5** of the outer sleeve 20 being a tapered external surface, and the second connector **A7** comprises a forward surface able to cooperate with the forward surface **A3** of the first connector **A2**.

Geib teaches an external surface of an outer sleeve **22** being tapered thus a tapered external surface to correspond to a bore of a machine element (col. 2, lines 36-39). Therefore, as taught by Geib, it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the external surface **12** tapered thus rendering a tapered external surface to correspond to a tapered bore of a machine element.

Geib teaches, in Figure 3, a second connector **43** comprising a forward surface B1 (see marked-up attachment) cooperable with a forward surface of a first connector 45 to retain a lock nut in an outer sleeve so that the inner sleeve separates from the outer sleeve in reverse rotation of the nut. Therefore, as taught by Geib, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide the second connector of Muellenberg with a forward surface B1 so that the forward surface is able to cooperate with the forward surface of the first connector to retain a lock nut in the outer sleeve **20** so that the inner sleeve **10** can become separated from the outer sleeve **20**.

Applicant should note that rotating the nut in a first direction inherently displaces the inner sleeve forwardly relative to the nut, which displaces the major diameter of the external surface of the inner sleeve toward the minor diameter of the outer sleeve internal surface.

Regarding claim 2, the outer sleeve **20** comprises axial slots extending longitudinally along the outer sleeve **20** (col. 4, lines 62-64). The axial slots provide sufficient radial flexibility.

Regarding claim 4, given the modification, the tapered external surface **A5** (similar to **12** in Figure 1) of the outer sleeve **20** would have had a minor diameter (due to the taper caused by the modification). The nut **30** would have had an external

diameter **A22** greater than the minor diameter of the external surface **12** of the outer sleeve **20**.

Regarding claim 5, given the modification, the external surface **A5** (similar to **12** in Figure 1) of the outer sleeve **20** would have had a major diameter **A23** and the outer sleeve **20** would have comprised an external flange **A50** extending radially outwardly adjacent the major diameter **A23** of the external surface **12** of the outer sleeve **20**.

Regarding claim 6, given the modification, one end **A55** of the inner sleeve **10** would have been continuous about the circumference.

Regarding claim 7, given the modification, the outer sleeve **20** would have been a one-piece sleeve comprising a slot **A18** (col. 4, lines 62-64) forming a section connected by a web **A28**. However, Muellenberg would have failed to disclose the slot being a plurality of slots. Geib teaches, in Figure 1, a one-piece sleeve comprising a plurality of slots **27** to provide sufficient flexibility to an outer sleeve **21**. Therefore, as taught by Geib, it would have been obvious to one of ordinary skill in the art at the time the invention was made to provide more than one slot on the outer sleeve to provide sufficient flexibility of the outer sleeve.

Regarding claim 8, given the modification, the outer sleeve **20** would have comprised of a stop (the modification would have created a groove between two flanges

and the creation of the groove by the flange results a forward surface which can act as a stop).

Regarding claim 23, Muellenberg, as modified, fails to disclose the threaded portion of the nut and the threaded portion of the inner sleeve being cooperating left hand threads. Applicant is reminded that right hand threads or left hand threads are obvious variations since both would accomplish the exact same axial motion. Since right hand threads are conventional, it would have been obvious to switch to left hand threads as part of preference for left hand users. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to either choose left hand threads over right hand threads for preference since both accomplish the same task.

Regarding claim 32, given the modification, the flange **A50** on the outer sleeve **20**, adjacent the major diameter, would have been able to cooperate with a machine element.

Claim 22 is rejected under 35 U.S.C. 103(a) as being unpatentable over Muellenberg, 5,067,847.

Regarding claim 22, Muellenberg, as modified, fails to disclose the threaded portion of the nut and the threaded portion of the inner sleeve being cooperating left

hand threads. Applicant is reminded that right hand threads or left hand threads are obvious variations since both accomplish the exact same axial motion. Since right hand threads are conventional, it would have been obvious to switch to left hand threads as part of preference. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to either choose left hand threads over right hand threads for preference since both accomplish the same task.

Claims 11 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Muellenberg, 5,067,847, in view of Stegeman et al., 5,308,183.

Regarding claim 11, Muellenberg, as discussed above, fails to disclose the frustoconical external surface of the outer sleeve having a minor diameter adjacent the forward end **A8** of the outer sleeve **20** and a major diameter spaced rearwardly from the minor diameter. Stegeman et al. teach, in Figure 2, an external surface **46** comprising a frustoconical external surface having a minor diameter spaced adjacent a forward end of an outer sleeve **22** and a major diameter spaced rearwardly from the minor diameter to engage a tapered bored in a machine element **14**. Therefore, as taught by Stegeman et al., it would have been obvious to one of ordinary skill in the art at the time the invention was made to make the external surface **12** a tapered external surface to engage a tapered bore in the machine element.

Regarding claim 12, given the modification above, Muellenberg discloses the nut **30** having an external diameter **A22** greater than the major diameter of the external surface **12**.

Claims 25 and 26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Soussloff, 4,600,334, in view of Muellenberg, 5,067,847.

Regarding claim 25, Soussloff, as discussed, fails to disclose the internal surface **32** of the outer sleeve **34** having a minor diameter adjacent a forward end of the outer sleeve and a major diameter spaced rearwardly from the forward end, and the external surface of the inner sleeve **120** having a minor diameter adjacent a forward end of the inner sleeve **120** and a major diameter spaced rearwardly from the forward end of the inner sleeve **120**. Muellenberg teaches, in Figure 1 or Figure 11, an internal surface **6** of an outer sleeve **20** having a minor diameter adjacent a forward end of the outer sleeve 20 and a major diameter spaced rearwardly from the forward end as reverse configuration for expanding the outer sleeve. Further, Muellenberg teaches an external surface 11 of an inner sleeve **10** having a minor diameter adjacent a forward end of the inner sleeve **10** and a major diameter spaced rearwardly from the forward end of the inner sleeve **10** to mate with the internal surface of the outer sleeve and expand the outer sleeve. Therefore, as taught by Muellenberg, it would have been obvious to one of ordinary skill in the art at the time the invention was made to change the internal

surface of the outer sleeve and the external surface of the inner sleeve in reverse to equally expand the outer sleeve in reverse.

Regarding claim 26, given the modification, rotating the nut **50** in the first direction would displace the major diameter of the external surface **25** of the inner sleeve **120** toward the minor diameter of the internal surface **32** of the outer sleeve **120**.

Claim 29 is rejected under 35 U.S.C. 103(a) as being unpatentable over Soussloff, 4,600,334, in view of Geib, 5,695,297.

Regarding claim 29, Soussloff, as discussed, discloses an external surface **36** of the outer sleeve **34** having a tapered surface having a major diameter (see Figure 1). However, Soussloff fails to disclose the outer sleeve **34** comprising an external flange A**5** extending radially outwardly adjacent the major diameter of the external surface **36**. Geib '297 teaches, in Figure 7, an external flange 380 extending radially outwardly adjacent an external surface of an outer sleeve 350' to be used as a tool engaging surface to prevent the outer sleeve from rotating (col. 8, line 18-22). Therefore, as taught by Geib '297, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include an external flange extending radially outwardly adjacent the major diameter of the external surface of the outer sleeve to prevent the outer sleeve from rotating and thus act as a tool engaging surface.

Response to Arguments

Applicant's arguments filed July 28, 2008 have been fully considered but they are not persuasive.

At the outset, it should be noted that patentability is based on the structural differences and not how the device operates. If applicant is concerned with its operation, applicant is advised to seek method claims, in particular, for a method of operation. Further, it should be noted that the recitation "upon rotation" is not a positively limitation that is required in particular for infringement since what is being patented is the structure and not whether one rotates the nut or not. In other words, is the claimed invention infringed only when upon rotation of the nut. It would seem that one can simply not rotate the nut in the same device and thus not infringe on the claim since the claim recites "upon rotation" and therefore it is upon rotation that the claim is met or, in this case, infringed. Accordingly, the recitation "upon rotation" does not serve to define structural features to make a distinction over the prior art and therefore the structural features recited would inherently provide for such methodology of operation.

Applicant argues that Muellenberg fail to teach a first connector having a forward surface and rearward surface spaced apart from the threaded position. This has not been found persuasive as Muellenberg teaches a first connector having a forward surface and a rearward surface spaced apart from the threaded position. The examiner

has additionally provided another marked-up copy that labels these surfaces accordingly. One can see from the marked-up figures that the first connector also cooperates with a second connector and that all that is missing is that the second connector is not a groove as taught by Geib, '243.

Applicant further argues that claim 1 recites a device that tightens by driving the inner sleeve through the inwardly tapered outer sleeve and that the wedging action occurs by driving the inner sleeve forwardly through the reduced diameter of the outer sleeve. In response, applicant is arguing the method of operation when patentability is solely based on the structural differences. Applicant keeps arguing about the method of driving the inner sleeve yet this is taught by Muellenberg alone. Further, it should be noted that the rejection is based on a combination of references and not Muellenberg alone. One skilled in the art would have combined the references and inherently reached the method of operation as argued.

Applicant argues that Muellenberg and Geib both teach a device that is tightened by pulling the outer sleeve rearwardly over the inner sleeve. In response, this might be so, but it should also be noted that the inner sleeve moves forwardly, a previously argued. This of course depends on the point of reference. If one were to stand on the outer sleeve, one will see that the inner sleeve comes toward you as shown by the arrows indicated in the marked-up attachment. The same can be said if one were to

stand on the inner sleeve. One would see that the outer sleeve goes over rearwardly as argued.

Applicant argues that Stegeman et al. is a completely different device from Muellenberg and that there is no similarity between the devices. This has not being found persuasive since the combined teaches would have suggested the claimed invention. The fact that Stegeman operates differently does not obviate the obviousness of using an external tapered surface with major and minor diameter where the minor diameter is adjacent a forward end. Further, the examiner could easily have relied on Soussloff as the reference also teaches the same subject matter in the outer sleeve 34.

Applicant argues that claim 24 has been amended further to overcome Soussloff as Soussloff incorporates an outer sleeve, an intermediate sleeve, and an internal sleeve. In response, this has not been found persuasive since the examiner is not relying of the most outer sleeve as the outer sleeve in the rejection. Instead, the examiner has relied on the intermediate sleeve 34 as the outer sleeve as this is also an outer sleeve relative to the inner sleeve 120. Applicant further argues that claim 24 further recites rotating the nut in the a first direction causes the nut to displace the outer sleeve rearwardly relative to the machine element. In response, it should be noted that patentability is not based on the method of operation and neither to components that are not claimed, i.e., the machine element. It should also be noted that rearwardly is a

relative term which is not clearly set forth in claim 24. The examiner can just easily argue that either side can be rearward relative to a machine element, which could be anything shown or not shown in Soussloff. The structural features found in the reference inherently result the method of operation since nothing in the claim structurally defines over the reference.

With respect to the interview summary and that the attorney has never had an examiner impose such a requirement, the examiner would like to point to MPEP 713.04 which states: "The action of the U.S. Patent and Trademark Office cannot be based exclusively on the written record in the Office if that record is itself incomplete through the failure to record the substance of interviews. It is the responsibility of the applicant or the attorney or agent to make the substance of an interview of record in the application file". Accordingly, the interview is not complete unless the attorney also records the substance. This is also stated on the interview summary mailed to the applicant.

Conclusion

The following prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Haug, DE-3,444,608, shows a similar device with an outer sleeve over the nut. The only feature missing in the orientation of the taper going the other way, which is simply an obvious orientation as taught by Muellenberg, 5,067,847,

or Martinie, EP-799,389, Figure 5. Mullenberg, WO-9001387, shows a similar device with both internal and external tapers of the outer sleeve.

Applicant's amendment necessitated the new grounds of rejection presented in this Office action. In particular, the new limitations "having a forward surface and a rearward surface spaced apart from the forward surface, wherein the rearward surface is spaced apart from the threaded portion" in claim 1, lines 3-5, "the second connector comprises a forward surface cooperable with the forward surface of the first connector" in claim 1, lines 14-16, "the second connector comprises a rearward surface cooperable with the rearward surface of the first connector" in claim 1, lines 19-20, "an engagement element spaced from the one end" in claim 9, lines 10-11, "cooperating with the engagement element" in claim 9, line 19, "having a first engagement surface and a second engagement surface" in claim 24, lines 3-4, "the second connector has a first engagement surface and a second engagement surface" in claim 24, lines 11-12, and "a tapered surface" in claim 29, line 2, necessitated the new grounds of rejection. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ernesto Garcia whose telephone number is 571-272-7083. The examiner can normally be reached from 9:30AM-6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Daniel P. Stodola can be reached at 571-272-7087.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should

you have questions on access to the Private PAIR system, contact the Electronic

Business Center (EBC) at 866-217-9197 (toll-free).

/E. G./

Examiner, Art Unit 3679

December 10, 2008
Attachments: one marked-up page of Soussloff, 4,600,334
one marked-up page of Muellenberg, 5,067,847
one marked-up page of Geib, 5,695,297

/Daniel P. Stodola/
Supervisory Patent Examiner, Art Unit 3679

Soussloff, 4,600,334

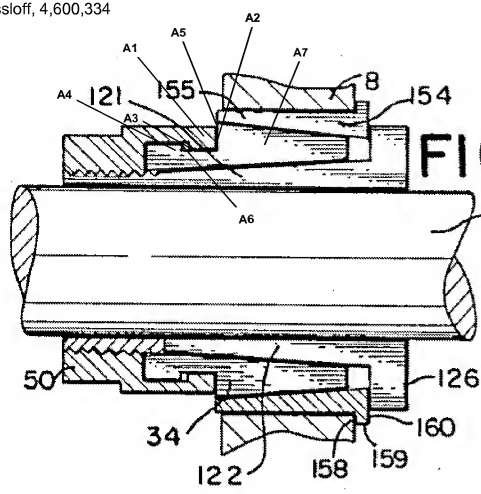


FIG.9

Muellenberg, 5,067,847

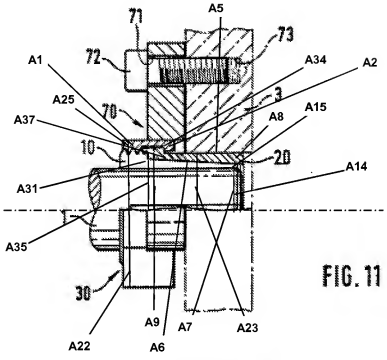
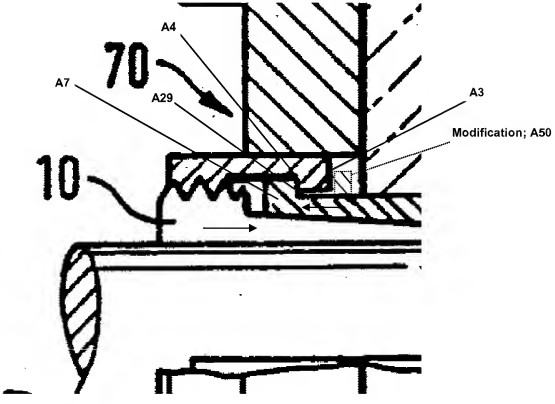


FIG. 11



Geib, 5,695,297

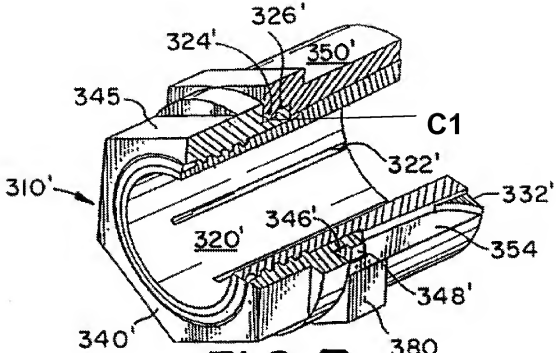


FIG. 7